

# Recovery Plan Action Status

**Plan Name:** Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California

**Plan Status:** Final

**Plan Date:** 25-Oct-00

**Lead Agency:** USFWS

**Lead Office:** Carlsbad Fish And Wildlife Office

(760)

431-9440 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.1	Protect essential habitat	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, Coachella Valley Mountains Conservancy, Coachella Valley Multiple Species Habitat Conservation Plan, Coachella Valley Water District, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, Agua Caliente Band of Cahuilla Indians	Other: Administration, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.2	Secure habitat	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, Coachella Valley Mountains Conservancy, Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, California Department of Fish and Game	Acquisition: General	Contract, Internal Administrative, Internal Technical Assistance	

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Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.3.1	Remove exotic vegetation and prevent invasion by exotic plants	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, Coachella Valley Water District, Riverside County Flood Control and Water Conservation Dist., U.S. Bureau of Land Management, California Department of Fish and Game, Agua Caliente Band of Cahuilla Indians	Management: Habitat Maintenance and Manipulation	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.3.2	Reduce/eliminate wild horses	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	California Department of Parks and Recreation, U.S. Bureau of Land Management, Agua Caliente Band of Cahuilla Indians	Management: Predator and Competitor Control	Internal Field Assistance, Internal Technical Assistance	completion date approximate
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	1.1.3.3	Implement fire management plan	Ongoing Not Current	FY 2000 - FY 2004		California Department of Parks and Recreation, U.S. Bureau of Land Management, California Department of Fish and Game, U.S. Forest Service	Management: Land Use, Management: Planning	Internal Administrative	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.3.4	Maintain/provide water sources	Ongoing Current	FY 2000 - FY 2004		California Department of Pesticide Regulation, U.S. Bureau of Land Management, California Department of Fish and Game	Management: Habitat Maintenance and Manipulation	Contract, Internal Field Assistance, Internal Technical Assistance	

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Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.1.3.5	Maintain/re-establish habitat connectivity	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, California Department of Transportation, Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: General, Management: General, Management: Land Use	Contract, Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.1.1	Construct fences to exclude bighorn sheep from urban areas	Partially Complete	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: General, Other: Regulations	Contract, Internal Field Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	1.2.1.10	Discourage feeding coyotes	Planned			Coachella Valley Multiple Species Habitat Conservation Plan	Other: Regulations	Internal Administrative	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.1.11	Secure funding to implement measures	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Management: Other, Other: Administration	Internal Administrative	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	1.2.1.2	Avoid non-native vegetation	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Management: General, Management: Land Use, Management: Planning, Other: Information and Education	Contract, Internal Administrative, Internal Technical Assistance, Volunteer	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	1.2.1.3	Promote native plants	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Management: General, Management: Land Use, Other: Information and Education, Other: Regulations	Contract, Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.1.4	Prohibit use of toxic plants	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Management: General, Management: Land Use, Management: Planning, Other: Information and Education, Other: Regulations	Internal Administrative, Internal Technical Assistance	

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Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	1.2.1.5	Discourage use of exotic invasive plants	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Other: Information and Education, Other: Regulations	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	1.2.1.6	Prohibit enticement on private property	Ongoing Not Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	1.2.1.7	Monitor use of pesticide, herbicides	Not Started			Coachella Valley Multiple Species Habitat Conservation Plan	Work type not yet selected	Labor type not yet selected	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.1.8	Regulate water diversion/procurement	Unknown			Coachella Valley Water District, Colorado Basin Regional Water Quality Control Board, Santa Ana Regional Water Quality Control Board	Work type not yet selected	Labor type not yet selected	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	1.2.1.9	Prohibit Culicoides water sources	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan	Management: Disease Control, Management: Habitat Maintenance and Manipulation, Other: Information and Education, Other: Regulations	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.2.1	Develop and implement a trails management program	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Management: Land Use, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	1	1.2.2.2	Prohibit fragmenting and interfering activities	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, County governments, U.S. Bureau of Land Management, U.S. Department of Defense, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Management: Depredation Control, Management: Land Use, Management: Planning, Other: Information and Education, Other: Regulations	Contract, Internal Administrative, Internal Technical Assistance	

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Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	1.2.2.3	Minimize livestock grazing impacts	Partially Complete	FY 2000 - FY 2004		U.S. Bureau of Land Management, U.S. Forest Service	Management: Land Use, Management: Planning, Management: Predator and Competitor Control, Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	1.2.2.4	Prohibit grazing by domestic sheep	Partially Complete	FY 2000 - FY 2004		U.S. Bureau of Land Management, U.S. Forest Service	Management: Disease Control, Management: Predator and Competitor Control, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	1.2.2.5	Fence cattle allotments adjoining habitat	Partially Complete	FY 2000 - FY 2004		U.S. Bureau of Land Management, U.S. Forest Service	Management: Disease Control, Management: Land Use, Management: Predator and Competitor Control, Other: Administration, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	1.2.2.6	Prohibit goats as pack animals	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	California Department of Pesticide Regulation, U.S. Bureau of Land Management, California Department of Fish and Game, U.S. Forest Service	Management: Disease Control, Management: Predator and Competitor Control, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	1.2.2.7	Secure funding to implement measures	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Other: Administration	Internal Administrative	

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Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	1.3.1.1	Regulate fence design/construction	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Forest Service	Management: Land Use, Management: Planning, Management: Predator and Competitor Control, Other: Administration, Other: Information and Education, Other: Regulations	Internal Administrative	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	3	1.3.1.2	Post/monitor highway crossing areas	Partially Complete	FY 2000 - FY 2004		California Department of Parks and Recreation, California Department of Transportation, U.S. Bureau of Land Management, California Department of Fish and Game	Management: Habitat Maintenance and Manipulation, Management: Land Use, Research: Migration, Research: Population Surveys	Graduate Student, Internal Field Assistance, Internal Technical Assistance	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	1.3.2	Reduce mortality due to natural causes	Ongoing Not Current	FY 2000 - FY 2004		California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: Depredation Control, Management: Disease Control, Management: Predator and Competitor Control, Research: Competition, Research: Disease, Research: Predation	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	1.4	Develop captive breeding, reintroduction, augmentation strategy	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: Propagation, Management: Reintroduction, Research: Demographic Studies, Research: Population Surveys, Research: Propagation	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	2.1.1	Monitor abundance	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Regulations, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	2.1.2	Monitor distribution	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Demographic Studies, Research: Habitat Status, Research: Migration, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	2.1.3	Monitor recruitment	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Demographic Studies, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	1	2.1.4	Monitor survivorship and cause-specific mortality	Ongoing Not Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Competition, Research: Demographic Studies, Research: Disease, Research: Predation	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	2.2	Develop population models	Ongoing Current	FY 2000 - FY 2004		University of Montana, U.S. Fish and Wildlife Service, California Department of Fish and Game, Conservation Biology Institute	Research: Competition, Research: Demographic Studies, Research: Disease, Research: Environmental Contaminants, Research: Habitat Requirements, Research: Habitat Status, Research: Migration, Research: Population Surveys, Research: Predation, Research: Propagation, Research: Reintroduction	Contract, Species Expert	

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Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	2.3	Research the relationships between bighorn, mountain lions, mule deer, and habitat characteristics	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, San Diego Zoological Society, University of California at Davis, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Competition, Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Migration, Research: Population Surveys, Research: Predation	Contract, Species Expert	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	3	2.4	Investigate the relationships between bighorn, coyote, and bobcat	Not Started			To be determined	Acquisition: Easement, Research: Migration, Research: Predation	Contract, Species Expert	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	2.5	Investigate the efficacy of temporary suppression of natural predation	Not Started			California Department of Parks and Recreation, U.S. Fish and Wildlife Service, California Department of Fish and Game	Work type not yet selected	Labor type not yet selected	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	2.6	Research habitat use/selection and dispersal behavior	Partially Complete	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, U.S. Fish and Wildlife Service, California Department of Fish and Game, To be determined	Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Migration	Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep (Ovis canadensis nelsoni)	2	2.7	Monitor the effects of human disturbance	Not Started			California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Coachella Valley Conservation Commission	Research: Other Information	Contract, Internal Field Assistance, Internal Technical Assistance	

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Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	2.8	Research disease and preventive measures	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, To be determined, U.S. Forest Service	Research: Disease	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	2.9	Research genetics	Not Started			To be determined	Research: Genetics, Research: Taxonomic Studies	Graduate Student, Species Expert	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	3.1	Distribute information on recovery efforts	Not Started			Bighorn Institute, California Department of Parks and Recreation, Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Other: Information and Education	Contract, Internal Administrative, Internal Technical Assistance, Volunteer	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	3.2	Continue, update, and coordinate existing programs	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Other: Administration	Internal Administrative	

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Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	2	3.3	Develop educational programs	Ongoing Current	FY 2000 - FY 2004		Bighorn Institute, California Department of Parks and Recreation, Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Other: Information and Education	Internal Administrative, Internal Technical Assistance	
Peninsular bighorn sheep ( <i>Ovis canadensis nelsoni</i> )	3	3.4	Injured sheep treatment protocol	Ongoing Current	FY 2000 - FY 2004		Coachella Valley Multiple Species Habitat Conservation Plan, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Administration, Research: Other Information	Contract, Internal Administrative, Internal Field Assistance, Internal Technical Assistance	